FIG. 1

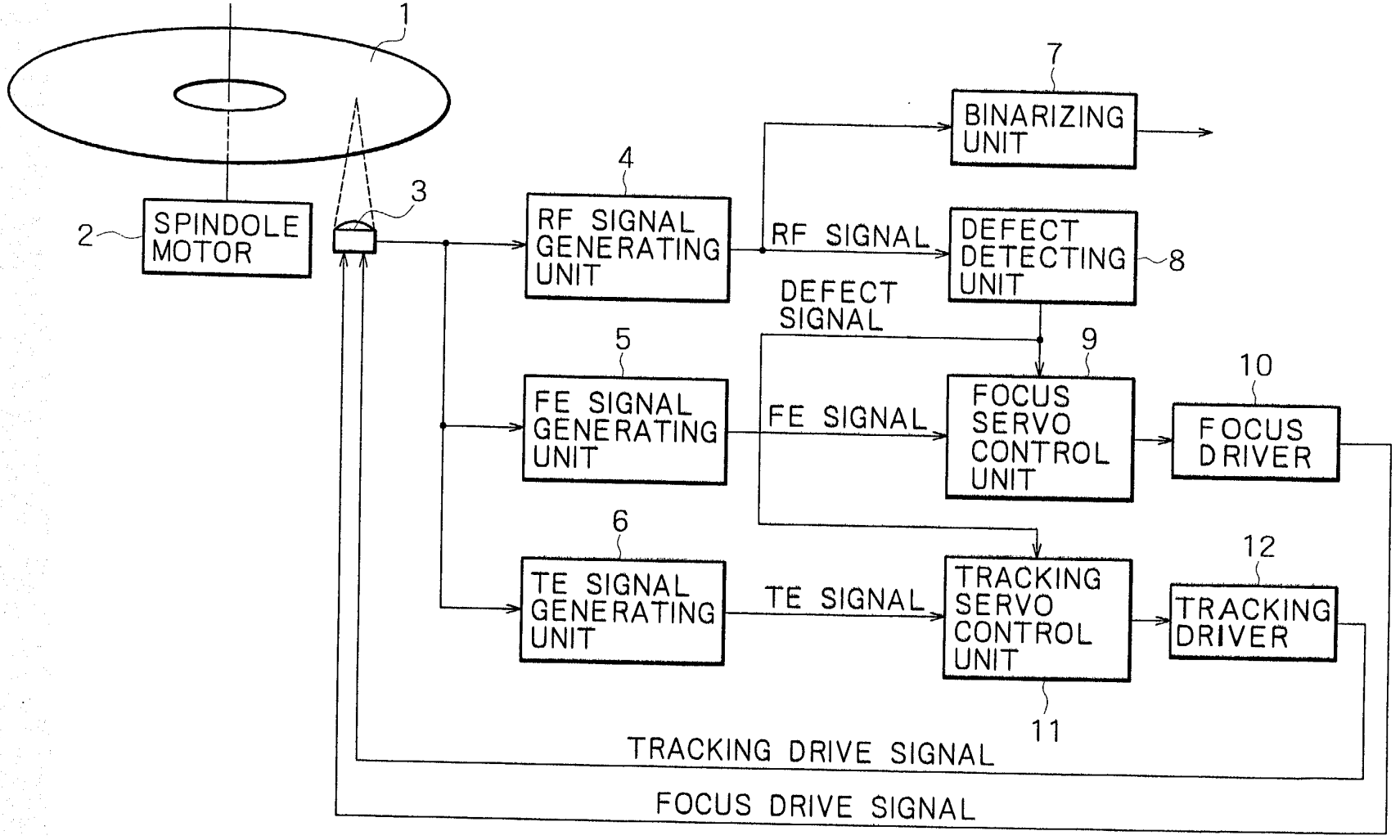

1
2
SPINDOLE MOTOR
3
4
RF SIGNAL GENERATING UNIT
5
FE SIGNAL GENERATING UNIT
6
TE SIGNAL GENERATING UNIT
7
BINARIZING UNIT
RF SIGNAL
8
DEFECT DETECTING UNIT
DEFECT SIGNAL
9
FOCUS SERVO CONTROL UNIT
FE SIGNAL
10
FOCUS DRIVER
TE SIGNAL
11
TRACKING SERVO CONTROL UNIT
12
TRACKING DRIVER
TRACKING DRIVE SIGNAL
FOCUS DRIVE SIGNAL

FIG. 2A RF SIGNAL

THRESHOLD VALUE

FIG. 2B DEFECT SIGNAL

H

L

FIG. 2C FE SIGNAL

FIG. 2D FOCUS DRIVE SIGNAL

FIG. 2E TE SIGNAL

FIG. 2F TRACKING DRIVE SIGNAL

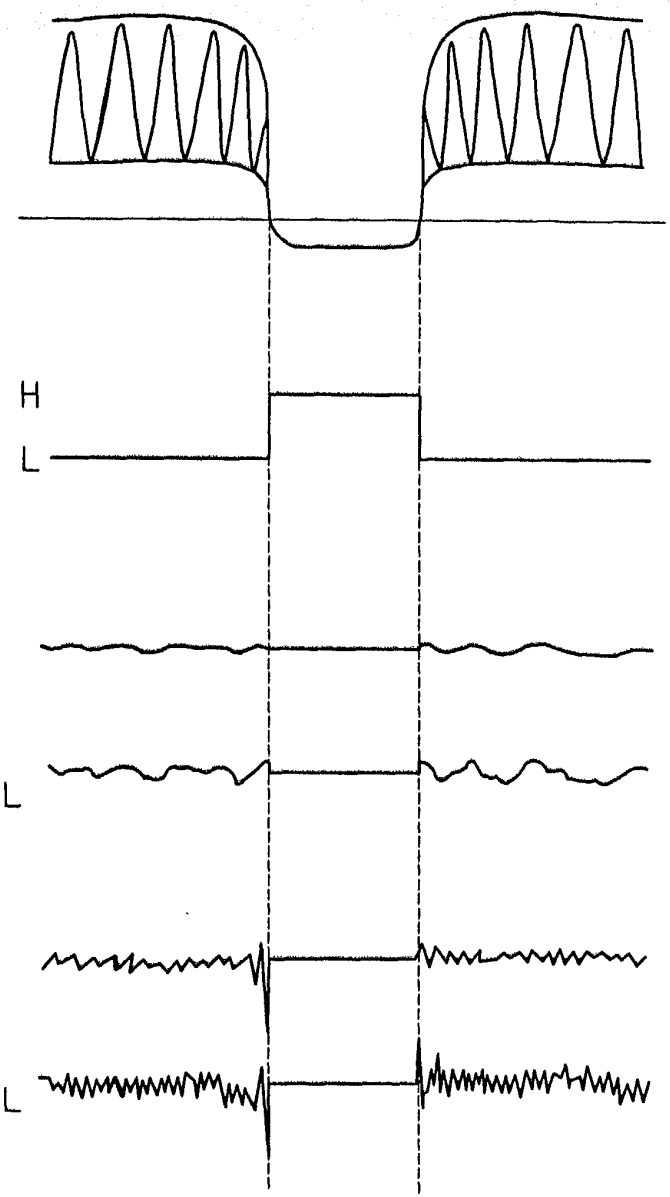


FIG. 3A DEFECT SIGNAL

FIG. 3B FE SIGNAL

FIG. 3C FOCUS DRIVE SIGNAL

FIG. 3D TE SIGNAL

FIG. 3E TRACKING DRIVE SIGNAL

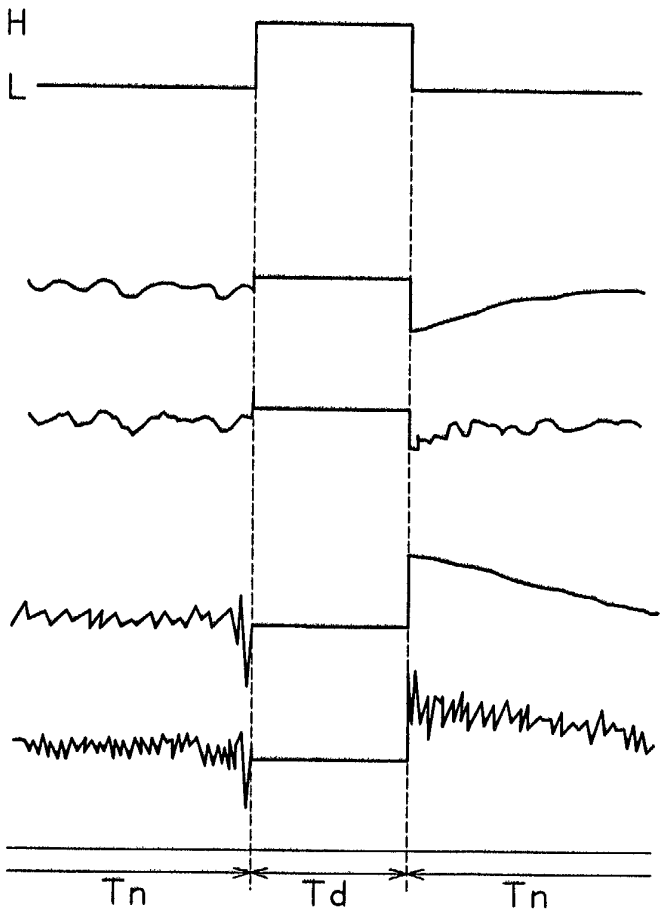
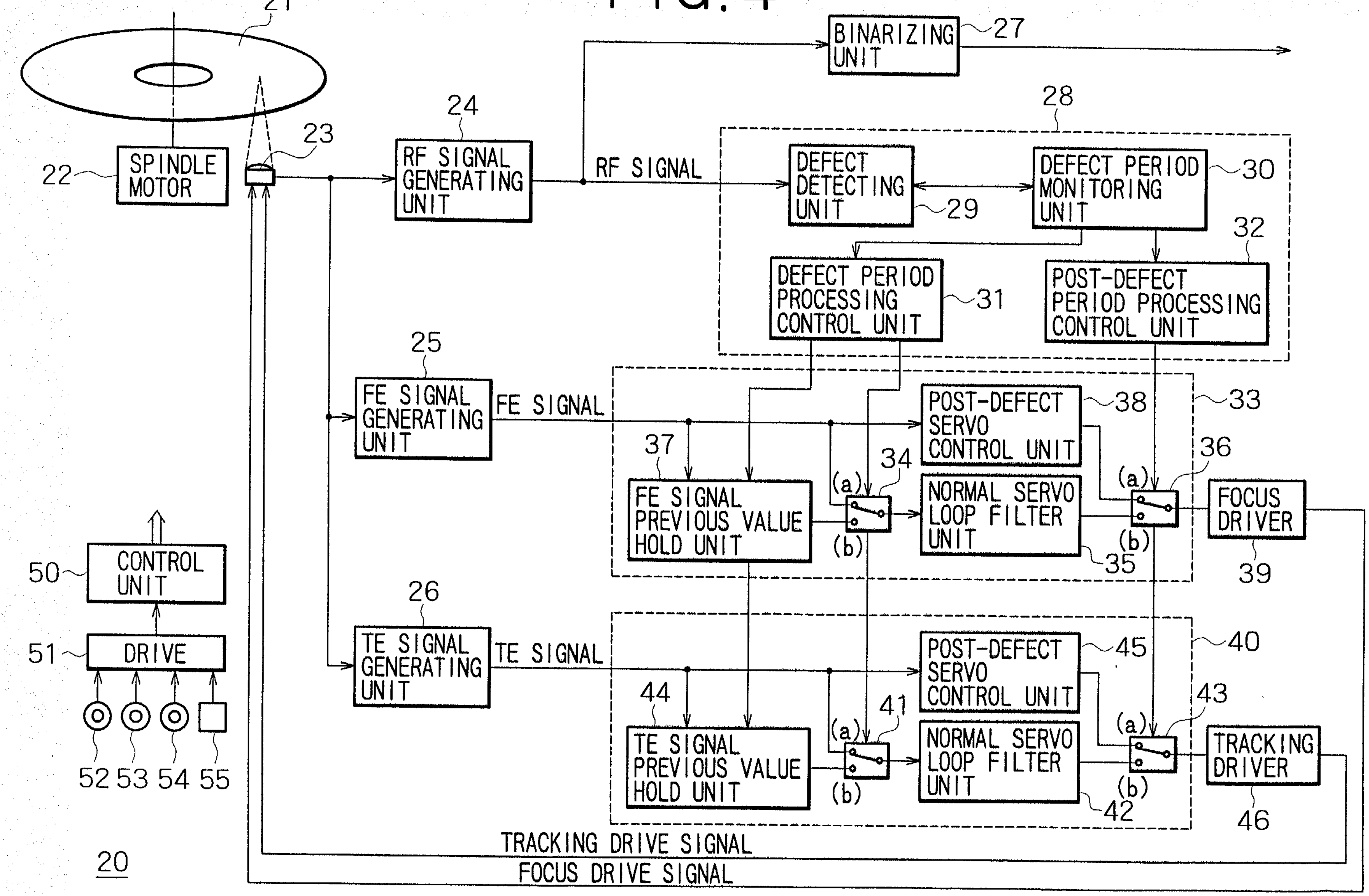


FIG. 4



21
22
SPINDLE MOTOR
23
24
RF SIGNAL GENERATING UNIT
RF SIGNAL
BINARIZING UNIT
27
28
DEFECT DETECTING UNIT
29
DEFECT PERIOD MONITORING UNIT
30
DEFECT PERIOD PROCESSING CONTROL UNIT
31
POST-DEFECT PERIOD PROCESSING CONTROL UNIT
32
25
FE SIGNAL GENERATING UNIT
FE SIGNAL
33
37
FE SIGNAL PREVIOUS VALUE HOLD UNIT
34
(a)
(b)
POST-DEFECT SERVO CONTROL UNIT
38
NORMAL SERVO LOOP FILTER UNIT
35
36
FOCUS DRIVER
39
26
TE SIGNAL GENERATING UNIT
TE SIGNAL
40
44
TE SIGNAL PREVIOUS VALUE HOLD UNIT
41
POST-DEFECT SERVO CONTROL UNIT
45
NORMAL SERVO LOOP FILTER UNIT
42
43
TRACKING DRIVER
46
TRACKING DRIVE SIGNAL
FOCUS DRIVE SIGNAL
50
CONTROL UNIT
51
DRIVE
52 53 54 55
20

FIG.5

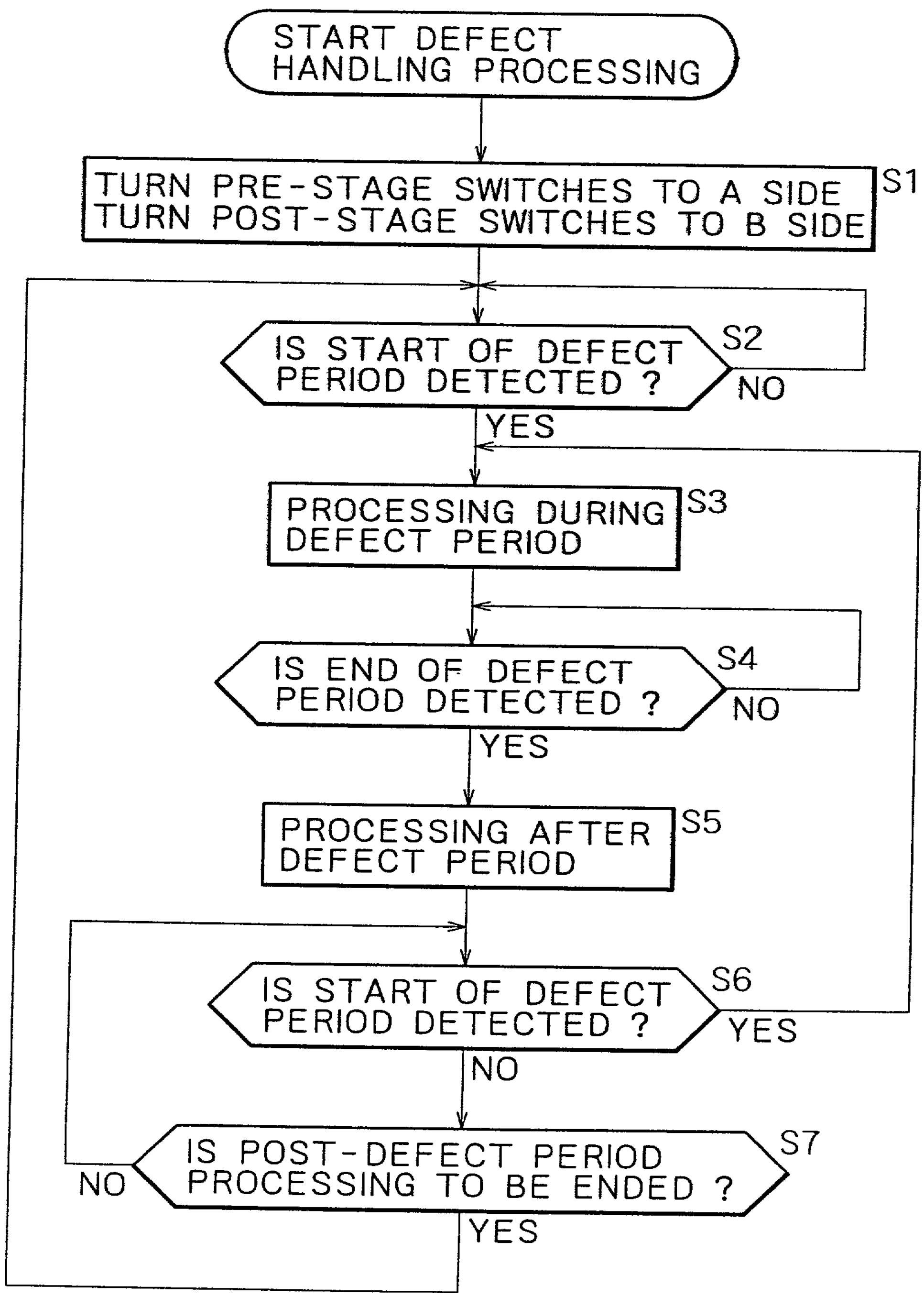

START DEFECT HANDLING PROCESSING
TURN PRE-STAGE SWITCHES TO A SIDE
TURN POST-STAGE SWITCHES TO B SIDE
S1
IS START OF DEFECT PERIOD DETECTED ?
S2
NO
YES
PROCESSING DURING DEFECT PERIOD
S3
IS END OF DEFECT PERIOD DETECTED ?
S4
NO
YES
PROCESSING AFTER DEFECT PERIOD
S5
IS START OF DEFECT PERIOD DETECTED ?
S6
YES
NO
IS POST-DEFECT PERIOD PROCESSING TO BE ENDED ?
S7
NO
YES

FIG. 6A DEFECT SIGNAL

FIG. 6B FE SIGNAL

FIG. 6C FOCUS DRIVE SIGNAL

FIG. 6D TE SIGNAL

FIG. 6E TRACKING DRIVE SIGNAL

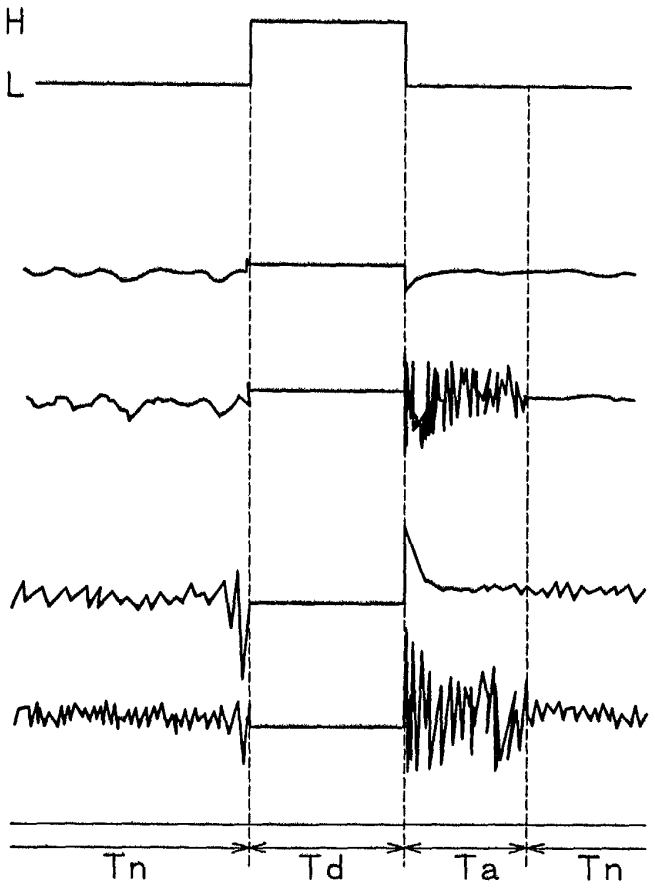


FIG. 7A DEFECT SIGNAL

FIG. 7B FE SIGNAL

FIG. 7C FOCUS DRIVE SIGNAL

FIG. 7D TE SIGNAL

FIG. 7E TRACKING DRIVE SIGNAL

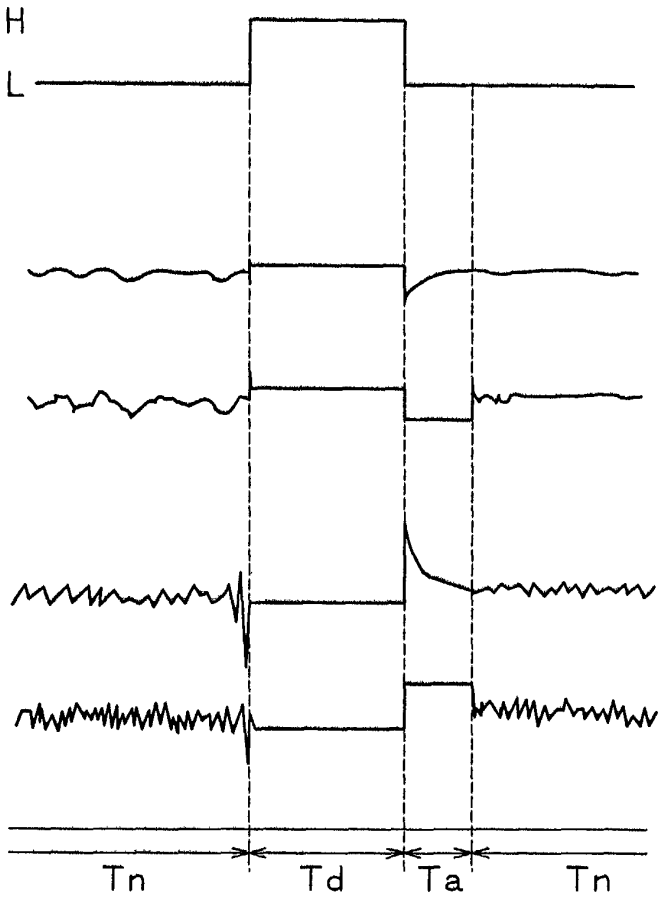


FIG. 8A DEFECT SIGNAL

FIG. 8B FE SIGNAL

FIG. 8C FOCUS DRIVE SIGNAL

FIG. 8D TE SIGNAL

FIG. 8E TRACKING DRIVE SIGNAL

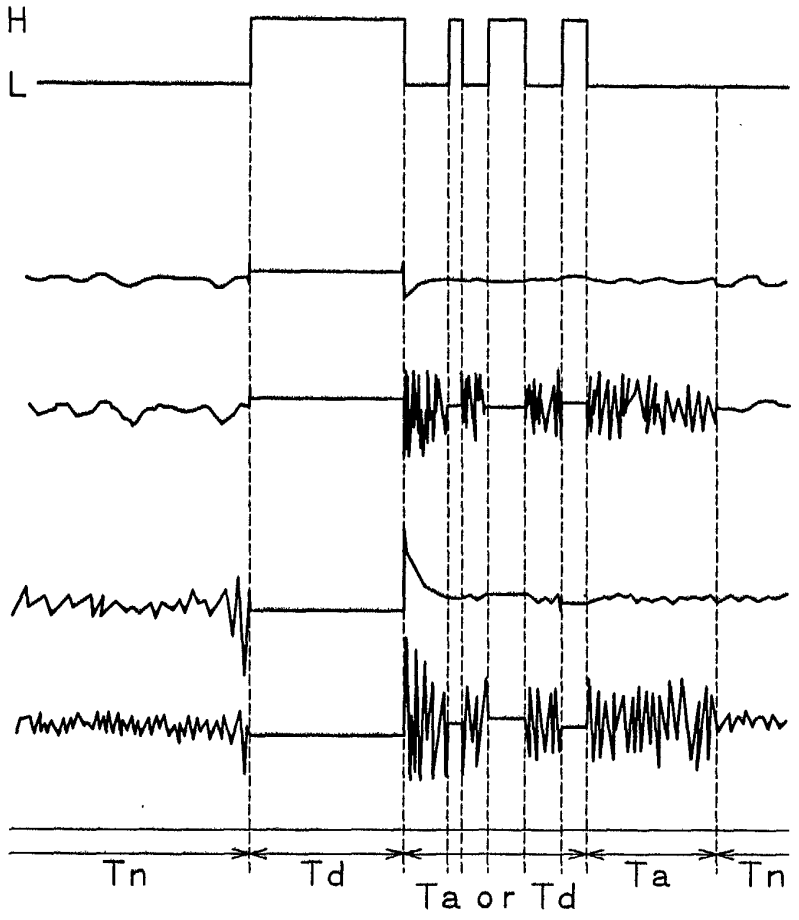


FIG. 9A DEFECT SIGNAL

FIG. 9B FE SIGNAL

FIG. 9C FOCUS DRIVE SIGNAL

FIG. 9D TE SIGNAL

FIG. 9E TRACKING DRIVE SIGNAL

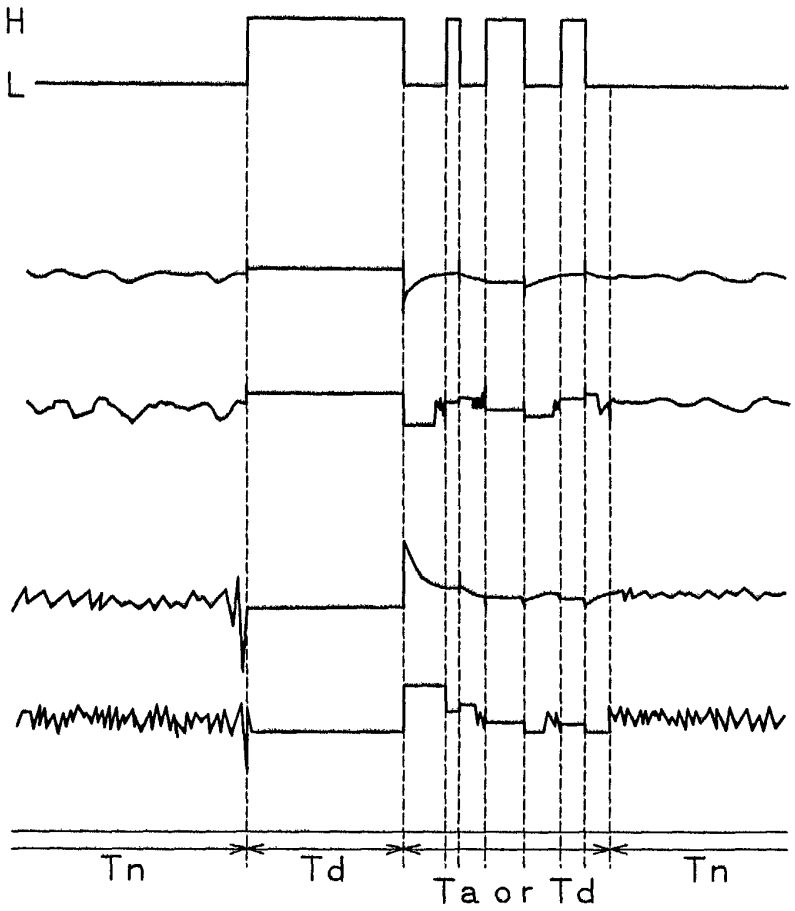


FIG. 10A DEFECT SIGNAL

FIG. 10B FE SIGNAL

FIG. 10C FOCUS DRIVE SIGNAL

FIG. 10D TE SIGNAL

FIG. 10E TRACKING DRIVE SIGNAL

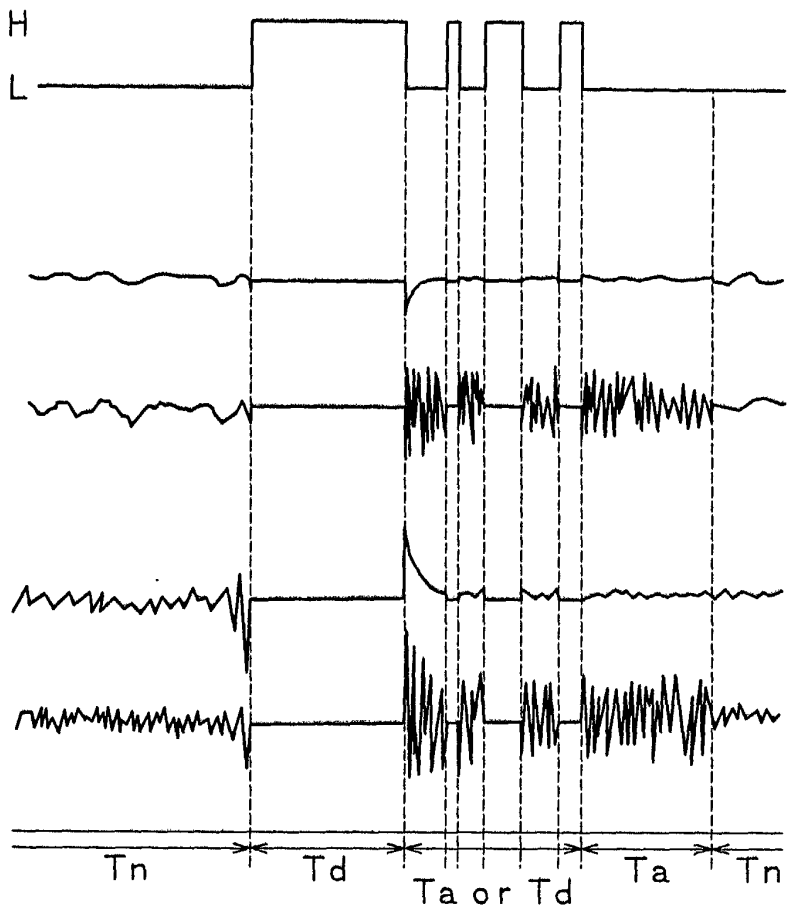


FIG. 11A DEFECT SIGNAL

FIG. 11B FE SIGNAL

FIG. 11C FOCUS DRIVE SIGNAL

FIG. 11D TE SIGNAL

FIG. 11E TRACKING DRIVE SIGNAL